

REMARKS

In the Office Action, the Examiner objected to various portions of the Specification based on several informalities; objected to claims 8, 15, 17 and 18 for containing informalities; rejected claim 13 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the application regards as the invention; rejected claims 1-3, 6, 8-14, 17-21 and 24-26 under 35 U.S.C. § 103(a) as being unpatentable over CHRISTIE et al. (U.S. Patent No. 6,081,525) in view of La PORTA et al. (U.S. Patent No. 5,473,679), and further in view of MOTTISHAW et al. (U.S. Patent No. 6,721,284); and objected to claims 4, 5, 7, 15, 16, 22 and 23 as being dependent upon a rejected base claim.

By way of this amendment, portions of the specification as well as claims 8, 13, 15, 17 and 18 have been amended to improve form. Accordingly, claims 1-26 are pending in the present application. Reconsideration and allowance of all claims in view of the following remarks is respectfully requested.

Applicants note with appreciation that claims 4, 5, 7, 15, 16, 22 and 23 have been indicated as containing allowable subject matter.

Initially, the Examiner objected to various portions of the Specification as containing informalities requiring correction. Accordingly, Applicant has amended the specification as set forth above to correct the noted informalities. Reconsideration and withdrawal of the objections is therefore respectfully requested.

Claims 8, 15, 17 and 18 were objected to for containing various typographical informalities. Applicant has amended these claims to correct the noted errors.

Accordingly, reconsideration and withdrawal of the objections is respectfully requested.

Claim 13 has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the application regards as the invention. More specifically, the Examiner indicates that the claim 13 limitation “wherein the second multi-service control point is the multi-service control point are the same multi-service control point” in lines 1-4 is vague and indefinite, since the claimed language is not adequately disclosed. Accordingly, Applicant has amended claim 13 to clarify the recited limitation as suggested by the Examiner. In view of this amendment, reconsideration and withdrawal of this rejection is respectfully requested.

Claims 1-3, 6, 8-14, 17-21 and 24-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over CHRISTIE et al. (U.S. Patent No. 6,081,525) in view of La PORTA et al. (U.S. Patent No. 5,473,679), and further in view of MOTTISHAW et al. (U.S. Patent No. 6,721,284). Applicant respectfully traverses.

Independent claim 1, recites an intelligent network for use with an ATM network to set up an ATM switched virtual circuit to provide VToA services and alias addressing. The intelligent network including a multi-service control point operable to receive an input extracted from an input ATM setup message that includes a called party phone number value and a *VToA designator*, generate an alias ATM address of a called party CPE that corresponds to a network gateway in communication with a PSTN switch

through a plurality of trunk lines and a desired trunk line of the plurality of trunk lines, and generate an output in response for use in generating an output ATM setup message. An ATM signaling intercept processor is operable to intercept the input ATM setup message from an ingress ATM edge switch of the ATM network, extract the input from the input ATM setup message, communicate the input to the multi-service control point, receive the output generated by the multi-service control point, generate the output ATM setup message using the output that includes the alias ATM address, and communicate the output ATM setup message to the ingress ATM edge switch of the ATM network. A service administration is operable to provision the multi-service control point and the ATM signaling intercept processor.

Applicant respectfully submits that the cited combination of CHRISTIE et al., La PORTA et al. and MOTTISHAW et al. fail to disclose or suggest the combination of features recited in Applicant's claim 1 as required by 35 U.S.C. §103(a).

For example, CHRISTIE et al. does not disclose or suggest a multi-service control point operable to receive an input extracted from an input ATM setup message that includes a called party phone number value and a *VToA designator*. Rather, the telecommunication system of CHRISTIE et al. appears to disclose a system wherein a signaling processor receives SS7 (Signaling System 7) or similar non-ATM call signaling and makes a virtual connection for the call based upon information in the received SS7 message. The Examiner relied upon several portions of CHRISTIE et al. for allegedly disclosing the claimed features listed above including: Fig. 5 for allegedly disclosing a multi-service control point (MSCP) and an ATM signaling intercept processor (ASIP)

(element 520 and 534, in particular); col. 2, lines 19-35 for allegedly disclosing receiving signaling for calls and generating an output in response for use in generating an output ATM setup message; col. 18, lines 6-10 for allegedly disclosing an input ATM setup message that includes a called party phone number value; and col. 9, lines 39-64 for allegedly disclosing a VToA designator (Office Action pp. 4-5). Applicant respectfully submits that these sections of CHRISTIE et al. do not disclose or suggest the claimed features recited above.

At col. 10, lines 27-50 (relating to Fig. 5), CHRISTIE et al. discloses:

FIG. 5 shows telecommunications system 500. Shown are user 510, user 512, user 514, user 516, STP [signal transfer point] 518, STP 520, STP 522, STP 524, mux 526, mux 528, mux 530, mux 532, call/connection manager (CCM) 534, CCM 536, CCM 538, CCM 540, ATM cross-connect 542, ATM cross-connect 544, ATM cross-connect 546, and Service Control Point (SCP) 550. The CCMs are designated as "signaling processor" on FIG. 5. For clarity, the connections and signaling links are not numbered. Except for the SCP, all of these components are described above, and the CCMs are also discussed below. SCPs are well known in the art. An SCP is a processor and database that answers signaling queries to assist in call processing. An example is an "800" routing query between a switch and an SCP.

In operation, user 510 may forward an 800 call to system 500. User 510 could be connected to mux 526 with a DS3 connection. The 800 call would occupy a DS0 embedded in the DS3 connected to mux 526. User 510 would send an SS7 Initial Address Message (IAM) through STP 518 to system 500. STP 520 would be configured to route the IAM to CCM 534. An IAM contains information such as the dialed number, the caller's number, and the circuit identification code (CIC). The CIC identifies the DS0 used by user 510 for the call.

Fig. 5 and the related section of CHRISTIE et al. disclose a system wherein various STP's, muxes and CCM's are used to route incoming calls based on information contained in a signaling message. As illustrated above, CCM 534 and STP 520 operate to receive an SS7 Initial Address Message used to identify a particular DS0 (conventional

voice circuit) used by the caller. This section of CHRISTIE et al. does not disclose a multi-service control point, as recited in Applicant's claim 1. More particularly, the Examiner indicates that CCM534 and STP 520 are equivalent in operation to the claimed multi-service control point (MSCP). As claimed, the MSCP operates to receive an input extracted from an input ATM setup message, with the ATM setup message being an ATM message (rather than a UNI, ISDN or SS7 message). The MSCP then generates an alias address of a called party CPE and generates an output in response for use in generating an output ATM setup message.

Conversely, the CCM and STP of CHRISTIE perform none of these functions and are therefore not equivalent to the claimed MSCP. Rather, the cited STP 520 receives a non-ATM, SS7, IAM from the user and passes this message to CCM 534 for analysis. CCM 534 then queries SCP 550 for routing instructions and identifies a VPI/VCI and destination point code for a CCM at the called party location. All of this occurs outside of the ATM environment. In contrast, the MSCP of the present invention acts in response to ATM setup messages and the information contained therein.

At col. 2, lines 19-35, CHRISTIE et al. discloses:

The telecommunications system comprises an ATM interworking multiplexer and a signaling processor coupled to the ATM interworking multiplexer. The method comprises receiving the signaling for the call into the signaling processor and processing the signaling to select the virtual connection. The method further includes generating a control message in the signaling processor to identify the particular connection and the selected virtual connection, and transmitting the control message to the ATM interworking multiplexer. The method further includes receiving the user information for the call from the particular connection into the ATM interworking multiplexer and converting the user information into ATM cells that identify the selected virtual connection in response to the control message. The method further includes transmitting the ATM cells from the ATM interworking multiplexer over the selected virtual connection.

This section of CHRISTIE et al. discloses a signaling processor coupled to an ATM multiplexer (MUX) which receives signaling for a call and processes the signaling to select a virtual connection by generating a control message identifying the connection for transmission to the MUX. CHRISTIE et al. does not disclose receiving an input extracted from an ATM setup message and generating an output in response for use in generating an output ATM setup message as recited in claim 1. The signal processing of CHRISTIE, as illustrated in detail above, is not related to or in response to an ATM setup message. Rather the signaling processor (CCM) receives SS7 or other non-ATM related signaling messages in order to set up and select a virtual connection. Clearly, the input received by the signaling processor CHRISTIE et al. is not equivalent to the input extracted from the ATM setup message of claim 1.

At col. 18, lines 6-10, CHRISTIE et al. discloses:

The initial address message (IAM) initiates the call and contains call set-up information, such as the dialed number. IAMs are transferred in the calling direction to set up the call. During this process, TCAP messages may be sent to access remote data and processing.

This section of CHRISTIE et al. discloses an initial address message (IAM) including call set-up information. However, as discussed in detail above, the IAM of CHRISTIE et al. is in no way equivalent to the ATM setup message of claim 1. Rather, the IAM of CHRISTIE et al. is an SS7 or other non-ATM signaling message conventional to the traditional voice domain.

At col. 9, lines 39-64, CHRISTIE et al. discloses:

FIG. 4 depicts virtual connections provided by the ATM cross-connect system in a version of the invention, although numerous other techniques for providing

virtual connections will be appreciated by one skilled in the art, and the invention contemplates any such system. Shown are virtual connections 410, 412, 414, 416, 418, 420, 422, 424, and 426. These virtual connections are shown interconnecting muxes 1, 2, and 3 through cross-connects X and Y. Virtual connections are provisioned in between each mux. Each mux would have a virtual path provisioned through the cross-connect system to every mux. Additional virtual paths could be provisioned between two muxes using diverse physical routes for the sake of redundancy. These virtual paths are designated in the ATM cells by the VPI. The VPIs are designated locally by the cross-connects to be the destination mux. For example, connections 410, 416, and 424 are all designated as VP1 because they terminate at mux 1. Connections that terminate at mux 2 can be defined locally as VP2. On a call entering at mux 1, the NPA-NXX of the dialed number might be analyzed to select mux 2 as the terminating mux. As such the VPI used on the call would be VP2. From mux 1, VP2 connects to mux 2. The VCIs in VP2 would also be tracked and an available one would be selected. As an alternative to VPI provisioning between muxes, ranges of VCIs may be provisioned between muxes to add granularity below the VPI level.

This section of CHRISTIE et al. discloses the manner in which the ATM multiplexers are provisioned with virtual paths through the cross-connect system. More particularly, this section discloses that a mux may receive a call and utilize information in the call (e.g., its area code (NPA) and prefix (NXX)) to select a destination or terminating mux and related VPI/VCI. This section of CHRISTIE et al. does not disclose any manner or element for enabling voice vs. data SVC creation or an element included within a setup message relating to such SVC creation as does the VToA designator of claim 1. The Examiner argues that somehow this section teaches that user information can be switched through an ATM fabric on a call by call basis. Additionally, the Examiner indicates that such a call basis is required to provide SVC's or SVP's and therefore, the VPI can be considered as a VToA designator for SVC.

The underlying logic behind the Examiner's arguments appear to lack any support in the CHRISTIE et al. reference whatsoever. The cited section of CHRISTIE et al., and

in fact the CHRISTIE et al. reference in its entirety, does not disclose or even remotely suggest utilizing a value (e.g., the VToA designator) in an ATM setup message to indicate that the setup message is a request for an SVC to provide VToA rather than traditional ATM data services (for support please see specification, pp. 19-20). As discussed at length in the specification, this determination enables the intelligent network to provide call-based features otherwise unavailable to VToA traffic. CHRISTIE et al. merely discloses selecting a VPI/VCI combination based upon call signaling information. VPI's and VCI's are required for all ATM communications regardless of type.

Claim 1 also recites a multi-service control point operable to ... generate an *alias ATM address* of a called party CPE that corresponds to a network gateway in communication with a PSTN switch through a plurality of trunk lines and *a desired trunk line of the plurality of trunk lines*. With respect to this feature, the Examiner relied on several portions of MOTTISHAW et al. for allegedly disclosing the claimed features listed above including: Fig. 2 for allegedly disclosing a MSCP and SPTN/IP Gateway + Gatekeeper block; col. 4, line 58-col. 6, line 12 for allegedly disclosing calling party information including alias addressing (col. 5, lines 52-58), called party information (col. 6, lines 10-12); col. 4, lines 10-26 for allegedly disclosing connection to a desired trunk line; and col. 10, lines 55-60 for allegedly disclosing alias addressing. Applicant respectfully submits that these sections of MOTTISHAW et al. do not disclose or suggest the claimed features recited above.

At col. 4, line 1-9 (relating to Fig. 2), MOTTISHAW et al. discloses:

An example of a monitoring system architecture is given in FIG. 2. This shows probes monitoring the PDN, SS7 network and the ISDN. The SS7 probes could be

for example from the Hewlett-Packard acceSS7 system. The ISDN primary rate access probes could for example be constructed using the same techniques as in existing protocol analysers (such as the Hewlett-Packard 37900D Signalling Test Set). The PDN probes could be constructed from Hewlett-Packard 4986/7 or 13457/8 LanProbes for example.

This section of MOTTISHAW et al. (and related Figure 2) discloses a monitoring system for generating service detail records for multi-format communications services. In particular a data management infrastructure (DMI) is provided for collecting data from various network probes (e.g., SS7 probes, ISDN probes, and PDN probes). A gateway is illustrated connecting the conventional IP (PDN) and switched circuit networks. Fig. 2 of MOTTISHAW does not disclose or even remotely suggest a multi-service control point responsive to an input extracted from an ATM setup message. Although ATM is listed as one of the potential network types potentially used with the monitoring system of MOTTISHAW et al., the operation and role of gateway in no way indicates equivalence to Applicant's claimed multi-service control point.

At col. 5, lines 52-58, MOTTISHAW et al. discloses:

1. Calling Party Information.

This includes any information which can be derived about the calling party from the signalling data flowing on the PDN, and is therefore available to the link monitoring probes. Typical information includes: calling party number; any ISDN sub-addressing information; calling party name; network addresses; TSAP or port numbers; alias addresses; and any numbers or addresses related to billing.

This section of MOTTISHAW et al. discloses the types of information which may be available relating to a calling party for monitoring and retrieval by link monitoring probes. Although alias addresses are including in the listing, no discussion is made relating to the manner in which the addresses are identified, generated or including within

the call information. There is no indication that the alias address information is generated by a multi-service control point in response to a received ATM setup message as recited in claim 1. In fact, there is no indication that the alias address relates to ATM addressing at al.

At col. 4, lines 10-26, MOTTISHAW et al. discloses:

The distributed monitoring system is arranged to correlate real-time data from any combination of these probes. This includes, for example, signalling data from the SS7 links, signalling from the ISDN links (e.g. the D-channel for narrowband ISDN), the signalling data for the multimedia service from the PDN, and the multimedia stream data (e.g. data indicating packet loss, latency or jitter). It may also include the capture of the entire multimedia stream for applications like wire tapping or troubleshooting.

For convenience the invention is described primarily with reference to the H.323 recommendation, using IP as the PDN, and optionally connected to one or more SCNs using narrowband ISDN and/or SS7 signalling with trunk connections. However, it should be understood that this terminology is to be taken as including within its scope analogous functionality, whether or not they are customarily identified by the terms used in these standard recommendations.

This section of MOTTISHAW et al. discloses that its monitoring system relates to a packet data network (e.g., IP) optionally connected to one or more switched circuit networks (e.g., PSTN) with trunk connections. The Examiner appears to argue that the mere reference to "one or more" SCNs having trunk connections implies that a desired trunk connection has somehow been identified and selected for use in generating an output ATM setup message. Claim 1 requires that an alias ATM address of a called party CPE be generated corresponding to a network gateway in communication with a PSTN switch through a plurality of trunk lines and a desired trunk line of the plurality of trunk lines. The trunk lines recited in MOTTISHAW et al. show no relation to alias ATM

address generation. Furthermore, MOTTISHAW et al. do not identify a desired trunk line of a plurality of trunk lines in generating the alias ATM address.

For at least the foregoing reasons, Applicants submit that claim 1 is patentable over the combination of CHRISTIE et al., La PORTA et al. and MOTTISHAW et al., either alone or in any reasonable combination.

Claims 2-13 depend from claim 1. Therefore, these claims are patentable over the cited combination of CHRISTIE et al, La PORTA et al., and MOTTISHAW et al. for at least the reasons given above with respect to claim 1.

Independent claims 14, 17 and 21 recite features similar to features recited above with respect to claim 1. Therefore, applicants submit that claims 14, 17 and 21 are patentable over the cited combination of CHRISTIE et al, La PORTA et al., and MOTTISHAW et al. for at least the reasons given above with respect to claim 1.

Claims 15 and 16 depend from claim 14. Therefore, these claims are patentable over the cited combination of CHRISTIE et al, La PORTA et al., and MOTTISHAW et al. for at least the reasons given above with respect to claim 14. Claims 18-20 depend from claim 17. Therefore, these claims are patentable over the cited combination of CHRISTIE et al, La PORTA et al., and MOTTISHAW et al. for at least the reasons given above with respect to claim 17. Claims 22-26 depend from claim 21. Therefore, these claims are patentable over the cited combination of CHRISTIE et al, La PORTA et al., and MOTTISHAW et al. for at least the reasons given above with respect to claim 21.

In view of the foregoing remarks, Applicant respectfully requests the Examiner's reconsideration of this application, and the timely allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 13-2491 and please credit any excess fees to such deposit account.

Respectfully submitted,

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Date: August 9, 2004

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